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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/039,103

01/04/2002

Kenneth L. Smith

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02/25/2003

3M INNOVATIVE PROPERTIES COMPANY

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EXAMINER

PHAN, JAMES

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 02/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,103

Applicant(s)

SMITH ET AL.

Examiner

James Phan

Art Unit

2872

-- Th MAILING DATE of this communication app ars on th cov r sh et with the correspond nce addr ss --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 40-47 and 49-59 is/are rejected.
- 7) ☒ Claim(s) 48 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

During the interview on 12/10/02 Mr. Jensen requested the examiner to consider the information disclosure statement (IDS) filed 12/10/02. The submitted IDS has been considered by the examiner. It is considered that the document cited in the IDS relevant to the claimed invention.

Note that a \$180.00 fee has been charged to applicant's account under 37 CFR 1.17(p).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 40-44, 46-47 and 49-51, are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips in view of the ^{"Reflexite's Response to 3M Letter..."} ~~Plastic Digest~~.

In re claims 40, 44, 46-47 and 51 Phillips discloses an elastomeric retroreflective sheeting 10 which comprises a first layer (12) comprising a first polymeric material, the first layer having a first and a second major surfaces; and a second layer (14) comprising a second polymeric material, the second layer having a third major surface and having a surface opposite the third major surface in which cube corner elements (20) are formed (see Fig. 1). The third major surface of the second layer attaches directly or through only a thin coating of transparent adhesive to the second major surface of the first layer (column 4, lines 24-27). Phillips further discloses that the first layer (12) comprises of polyvinyl chloride (column 3, lines 25-36) and the second layer

Art Unit: 2872

ج.ل- (14) of a polymer that has a high modulus of elasticity (column 3, lines 48-53). Phillips does not disclose that the first layer has an elastic modulus of less than 7×10^8 pascal and that the second layer has an elastic modulus of greater than 20×10^8 pascals. However, a retroreflective sheeting which comprises a first layer comprising a first polymeric material having an elastic modulus of less than 7×10^8 pascals, and a second layer comprising a second polymeric material having an elastic modulus of greater than 20×10^8 pascals is known in the art. The Reflexite's response to 3M letter asserting infringement of U.S. patents 5,450,235 and 5,988,820 discloses a retroreflective article, namely "Supper Bright" or SB tape, which comprises a retroreflective sheeting having cube corner elements. The retroreflective sheeting comprises a first layer comprising a first polymeric material (polyvinyl chloride) having an elastic modulus 1.623×10^8 pascals, the first layer having a first and a second major surfaces; and a second layer comprising a second polymeric material having an elastic modulus 22.62×10^8 pascals for improving the long- lasting durability, long-lasting brightness with flexibility and resistance to impact. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of the Reflexite's response to 3M letter asserting infringement of U.S. patents 5,450,235 and 5,988,820 in Phillips for the purpose stated in the Reflexite's response to 3M letter asserting infringement of U.S. patents 5,450,235 and 5,988,820.

In re claim 41 see column 4, lines 12-14.

In re claim 42 the portion having the thickness between valley (24) and the third major surface of the second layer (14) has been taken as a land layer which is integral with the cube corner elements (20).

In re claim 43 see reflective coating 26.

In re claims 49-50 see column 3, lines 61-63.

Art Unit: 2872

Claims 45, 52-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips in view of the Reflexite's response to 3M letter asserting infringement of U.S. patents 5,450,235 and 5,988,820 as applied to claims 40-44, 46-47 and 49-51 above, and further in view of McGrath.

Phillips in view of the Reflexite's response to 3M letter asserting infringement of U.S. patents 5,450,235 and 5,988,820 as applied to claims 40-44, 46-47 and 49-51 above discloses all the claimed features except for a seal film applied to the retroreflective sheeting to maintain air interface at the cube corner elements. McGrath discloses a retro reflective sheeting having a seal film applied to the retroreflective sheeting to maintain air interface at the cube corner elements for providing a flat rear surface for bonding the sheeting to a substrate (column 1, lines 51-54). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of McGrath in Phillips for the purpose stated McGrath.

In re claim 53 see column 4, lines 12-14.

In re claim 56 the portion having the thickness between valley (24) and the third major surface of the second layer (14) has been taken as a land layer which is integral with the cube corner elements (20).

In re claims 58-59 see column 3, lines 61-63.

Allowable Subject Matter

Claim 48 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach or suggest a retroreflective sheeting defined in claim 48, wherein the third major surface of the second layer attaches through only a thin coating of primer to the second major surface of the first layer.

Conclusion

Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 12/10/02 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609(B)(2)(i). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2872

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Phan whose telephone number is (703)308-4810. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on (703)308-1867. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703)308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Phan, J.
February 24, 2003


James Phan
Primary Examiner